

Notice of Allowability

Application No.

10/088,481

Examiner

Patricia Hightower

Applicant(s)

YAMASHITA ET AL.

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed July 23, 2003.
2. ☒ The allowed claim(s) is/are 1-6, 8, 9, 11-21 and 23.
3. ☒ The drawings filed on 02 March 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

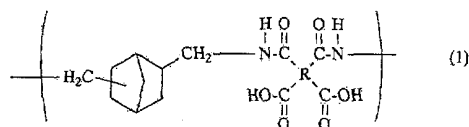
- | | |
|--|---|
| 4 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

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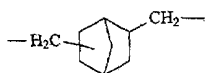
Reasons For Allowance

The following is an examiner's statement of reasons for allowance:

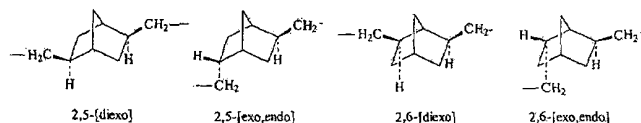
In view of the applicants' amendment filed July 23, 2003 the claimed polyamic acid having the repeating units denoted by the formula (1), the polyimide having the repeating units denoted by the formula (2), the methods of preparing the polyamic acid and the polyimide film and the polyamic acid varnish; all prepared from an alicyclic diamine, diaminomethyl-bicyclo[2.2.1] heptane [NBDA] in which the composition ratio of the 2,5-substituted isomer and the 2,6-substituted isomer in the diamine isomer mixture is varied; wherein the the 2,5-substituted isomer and the 2,6-substituted isomer additionally form stereo-isomers, a mixed composition of four structural isomers, (2S,5S)-NBDA, (2S,5R)-NBDA, (2S,6R)-NBDA and (2S,6S)-NBDA;



wherein the norbornane skeleton of



comprises four components of

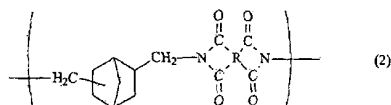


and their contents satisfy the following:

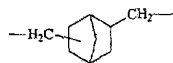
$$1\% \leq 2,5\text{-[diexo]} \leq 90\%$$

$$1\% \leq 2,5\text{-[exo,endo]} \leq 90\%$$

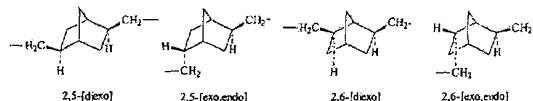
$$1\% \leq 2,6\text{-[diexo]} \leq 90\%$$



wherein the norbornane skeleton of



comprises four components of



and their contents satisfy the following:

$$10\% \leq 2,5\text{-[diexo]} \leq 40\%$$

$$10\% \leq 2,5\text{-[exo,endo]} \leq 40\%$$

$$10\% \leq 2,6\text{-[diexo]} \leq 40\%$$

$$10\% \leq 2,6\text{-[exo,endo]} \leq 40\%$$

provided that

$$(2,5\text{-[diexo]}) + (2,5\text{-[exo,endo]}) + (2,6\text{-[diexo]}) +$$

$$(2,6\text{-[exo,endo]}) = 100\%$$

wherein the polyimides and polyamic acids formed from these NBDA isomers exhibit improved and controlled thermal resistance, melt flowability, optical properties, chemical-resistance, electric properties and film properties dependent thereupon the composition ratio of the NBDA isomers; the claims are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia Hightower whose telephone number is (703) 308-2434. The examiner can normally be reached on M-F from 9:30 A.M. - 6:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

P. Hampton Hightower

P. Hightower: ph
September 30, 2003

P. Hampton-Hightower
Primary Examiner
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